

Abstract of the Disclosure

A multilevel image into which a color or a
back-and-white image is converted is input, and a
5 slightly indistinct binary image generating unit
generates a slightly indistinct binary image that
includes a slightly indistinct line pattern and does
not include background noise. Additionally, a
shape-preserved binary image generating unit generates
10 a binary image that preserves the shape of a line pattern
and includes background noise. These images are ANDed
for each pixel, so that a binary image that preserves
the shape of the line pattern and does not include the
background noise is generated.

15